

ABSTRACT OF THE DISCLOSURE

A system and method are shown for offloading a computational service on a point-to-point connection. When a tunnel initiator network device, such as a Level 2 Tunneling Protocol Access Concentrator (LAC), detects a tunnel client network device, the LAC sets up a tunnel connection with a tunnel endpoint network device, such a Level 2 Tunneling Protocol Network Server (LNS). During a process of establishing a call session on the tunnel connection, the LAC sends its compression capabilities to the LNS. When the LNS detects that the LAC is capable of compressing tunnel packets, the LNS negotiates compression parameters with the tunnel client network device. Subsequently, the LNS transmits the negotiated compression parameters to the LAC that configures a compression engine based on the received compression parameters. Hereinafter, the tunnel client network device will send compressed tunnel packets to the LAC that will decompress the received tunnel packets prior to transmitting the tunnel packets to the LNS on the tunnel connections. Similarly, the LNS will send uncompressed tunnel packets on the tunnel connection to the LAC that will compress the received tunnel packets prior to transmitting the tunnel packets to the tunnel client network device.